

# i-SOL8<sup>®</sup>S



**i-SOL8<sup>®</sup>S** is a **Thermally Broken Brise Soleil Curtain Wall Bracket** designed to fit all major curtain wall systems with a high strength capacity; a unique combination offering a choice of class leading performance characteristics for any application.

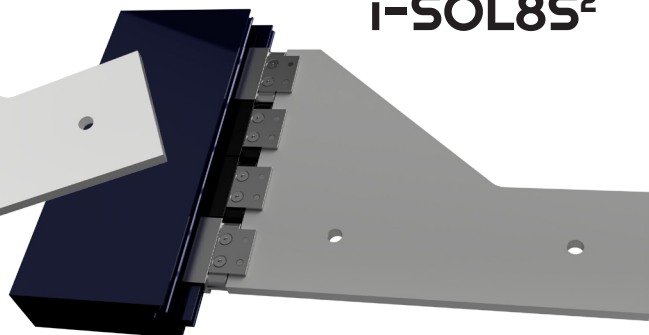
(Pat. Pending GB1701210.5)

- Efficient thermal bridging resistance (Chi value ranging from 0.16 to 0.24 W/K)
  - Zero Interstitial Condensation\*
  - Infinite flexibility with modular build design and bespoke bracket profiles utilising the patented i-SOL8 design — Carbon Fibre or Stainless Steel 304 (S)
  - Highest loadbearing capacity available with interchangeable bracket chocks
- \* Based on using a heavy duty cantilever aluminium bracket combining **i-SOL8<sup>®</sup>** and **i-SOL8<sup>®</sup>S** bracket blocks.

**i-SOL8S<sup>1</sup>**



**i-SOL8S<sup>2</sup>**



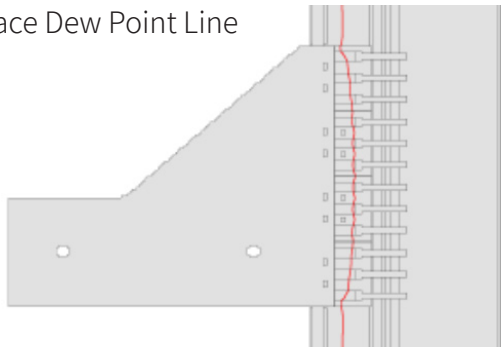
# i-SOL8<sup>®</sup>S

## Thermal advantages

The **i-SOL8<sup>®</sup>S** Bracket guarantees zero interstitial condensation.

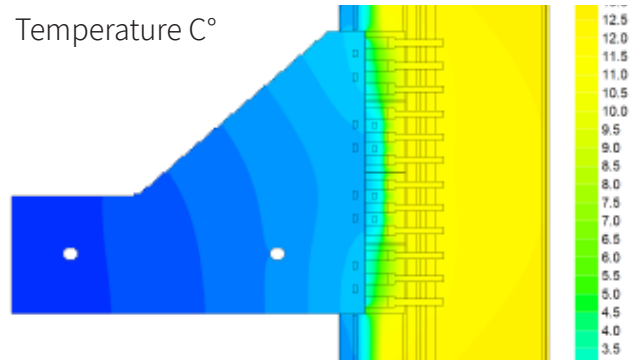
Vertical section

Surface Dew Point Line



Vertical section

Temperature C°

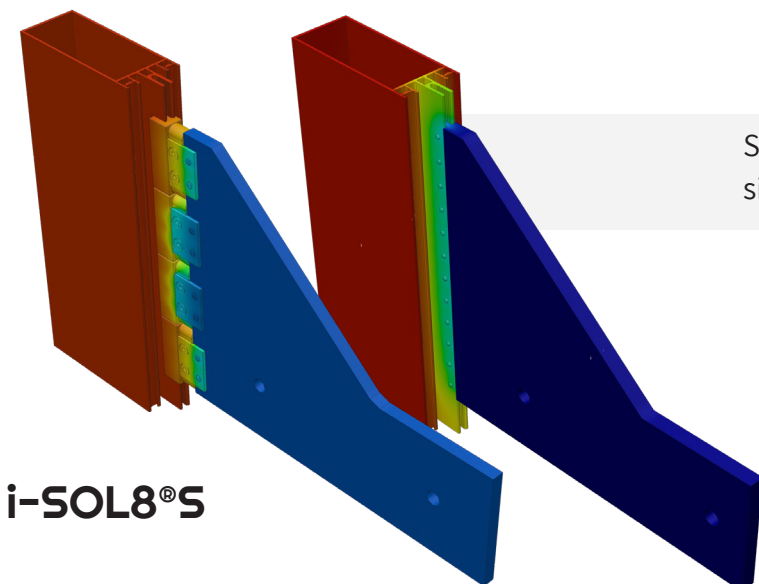


i-SOL8S	EPDM Temp	Aluminium Temp, °C	Bracket $\chi$ - value, W/K
i-SOL8S <sup>1</sup>	8.88	12.66	0.1598
i-SOL8S <sup>2</sup>	8.7	11.81	0.2391

Internal Conditions 20°C, 40% RH  
 External Temperature -5°C  
 Interstitial condensation risk Zero

Simulations undertaken by facade specialists, The Wright Consultancy, conclusively show that use of a non-thermally broken/ efficient aluminium bracket of only 225mm length will promote interstitial condensation within the curtain wall structure. This is especially onerous in two ways; the promotion of mould growth and the possibility of hidden corrosion damage for unprotected internal structure.

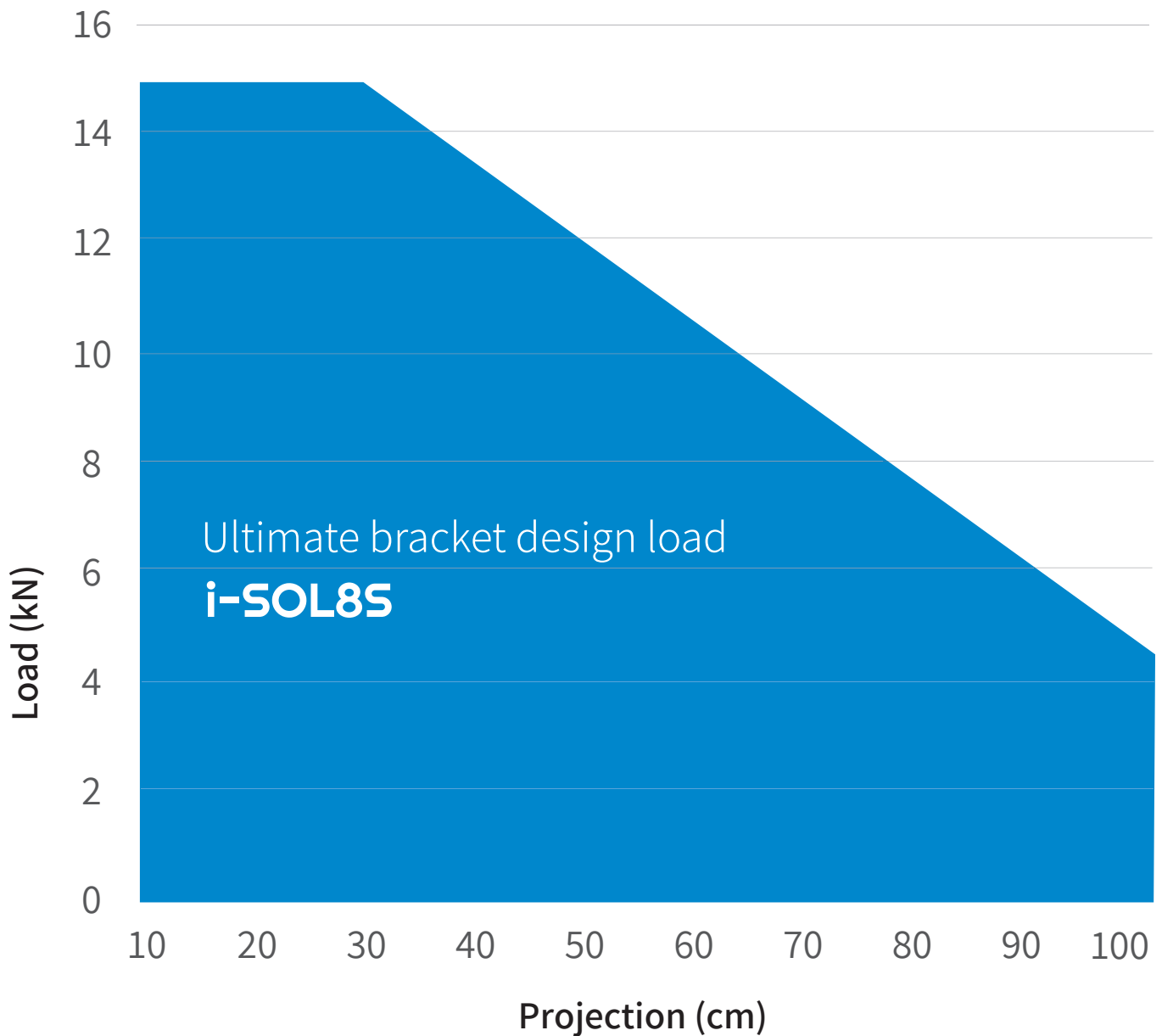
A standard type aluminium bracket with a length greater than 200mm does not meet building regulations - this is further compounded yet again by fixing solar shading to it. The addition of an aluminium solar shading system fixed to the bracket substantially increases the external thermal mass; without an effective thermal bridge to the bracket the solar shading as a whole system should be analysed for the overall required U value.



Standard pinned bracket comparison causing significant interstitial condensation risk

Note - with no Thermal break present, a bracket of this size and material will inherently mean a condensation risk internally within the mullion.

## Loading advantages



Tests have been performed by a third party UKAS accredited test laboratory. It is the responsibility of the user to test the bracket for each application the design may be used upon together with the appropriate structural calculations performed by a structural engineer.

The **i-SOL8<sup>®</sup>5** bracket is modular, it has an infinite number of assembly variations; it is therefore impractical to test all build combinations/ curtain wall supplier systems.

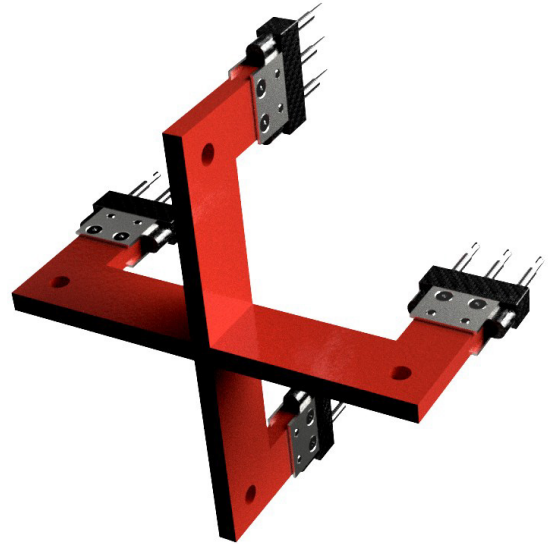
Testing for a specific requirement or application may be undertaken by ourselves - please enquire for further information.

# i-SOL8®S

## Design

The bracket is designed in modular form to allow the greatest possible flexibility combining both carbon fibre composite and stainless steel (304 grade) isolating structural blocks. The stainless steel **i-SOL8®S** blocks allow greater structural capacity under even more demanding circumstances; primarily designed to ensure in the case of fire that the affixed external furniture can not fall prior to the known curtain wall system parameters.

Advantages of using **i-SOL8®S** include improving the overall strength of the design [internal mullion reinforcement also required] to that of the standard i-SOL8 bracket with minimal compromise to the thermal efficiency. Perhaps most importantly the interstitial condensation risk remains zero even using 50% carbon fibre **i-SOL8®** and 50% stainless steel **i-SOL8®S** blocks.



## Applications

- Brise Soleil
- Juliet balcony fix
- Signage
- Drain pipes
- Any application that requires fixing into curtain walling that is load bearing

## Warranty

A **free of charge** replacement part warranty is **guaranteed for five years** should any product prove to be defective from supply.

The **i-SOL8®S** 304 stainless steel blocks are manufactured using the investment cast process, this ensures very high quality and dimensional accuracy. The specialist supplier conforms to **ISO9001, PED and AD2000** approvals for castings.

Any guarantee is conditional on the correct system parameters and the fixing instructions being followed for use.

## Contact

**Blue Sky Concept Design Ltd**

01452 500384

07584 038651

sales@i-sol8.com

www.i-sol8.com

www.blueskyconcept.com